

Privacy and Security Solutions for Interoperable Health Information Exchange

Interim Implementation Plan

Subcontract No.
RTI Project No. 9825

Prepared by:

Shannon Smith-Ross, MPH, MS
Donna Travis
Virginia Headley, PhD (Headley and Associates)
Illinois Foundation for Quality Health Care
2625 Butterfield Road
Oak Brook, IL 60523

Submitted to:

Linda Dimitropoulos, Project Director
Privacy and Security Solutions for
Interoperable Health Information Exchange

Research Triangle Institute
P. O. Box 12194
3040 Cornwallis Road
Research Triangle Park, NC 27709-2194

February 15, 2007



Table of Contents

Section 1 - Background.....	1
Section 2 – Summary of Interim Assessment of Solutions Report	2
Section 3 – Review of State Implementation Planning Process	3
Section 4 – State-level Implementation Plans.....	6
Solution 1	6
Solution 2	10
Solution 3	15
Solution 4.....	19
Solution 5	24
Solution 6.....	28
Solution 7	32
Solution 8.....	36
Section 5 – Multi-state Implementation Plan	40
Section 6 – Appendices	42
Appendix 1 – Illinois EHRTF Final Report.....	43

Section 1 - Background

Purpose

The purpose of this report is to outline a plan to implement the solutions proposed for addressing privacy and security-related issues that have been identified as significant barriers to the successful electronic health information exchange (HIE) within the state of Illinois. This report will outline the process used to develop implementation plans for the proposed solutions, including the organization and charge of the implementation planning work group (IWG), the process used to formulate, propose, and assess the feasibility of implementation plans, and the means by which the projects will be funded, staffed, and governed.

The Interim Implementation Plan Report consists of eight specific implementation plans that correspond to each of the proposed solutions identified in the Interim Solutions Report. Each of these implementation plans include a summary of the solution, scope definition, identification of key assumptions, a task plan, assigned resources, a projected budget, a project governance model, and a projected timeline.

Report Limitations

Considerable effort was made to ensure that the solutions and corresponding implementation plans were practical, effective and achievable. Despite these efforts, there are still factors that must be taken into account that directly impact the report content. Many of the solutions and implementation plans outlined in the report depend on the existence of the Illinois Health Information Network (ILHIN). The creation of the ILHIN is part of the recommendations of the Illinois Electronics Health Records Taskforce (EHRTF) as part of its final report to the Illinois General Assembly. Set up as a not-for-profit organization, the ILHIN's primary objective would be to establish a state-level health information exchange. Given this charge and the level of multidisciplinary representation proposed for the ILHIN's governance structure (see Appendix 1 – EHRTF Final Report), responsibility of these recommended projects would be a perfect fit for the ILHIN. However, since the entity does not currently exist and the acceptance of these responsibilities has not been formalized, the ILHIN remains a very critical assumption.

Another important factor to consider regarding this report is that, because Illinois is just getting started in HIE, there is little information available to help determine costs and detailed plans for implementing these recommended solutions. The IWG found that developing detailed task plans and budgets was extremely difficult as identifiable resources and costs that may be readily available in an existing, established infrastructure devoted to HIE development is not present in Illinois. This made confirmation of analysis somewhat difficult.

Finally, the national-level solution recommendations do not lend themselves to the establishment of implementation plans. These recommendations require either establishment of new laws or clarification of existing laws on a federal level. State involvement would primarily be limited to providing recommendations for legislation.

Section 2 – Summary of Interim Assessment of Solutions Report

The Solutions Working Group (SWG) members were comprised of experts in health information management and information technology systems. Other members included legal (risk management), physicians (emergency medicine), and a consumer advocate. The Illinois Electronic Health Records Taskforce (EHRTF) served as the reviewing body for the proposed solutions.

The SWG began with the task of developing a more comprehensive list of barriers than that which was derived by the Variations Working Group (VWG) as part of its review of business practices in Illinois related to the security and privacy of health information. The list of barriers generated through discussion by the SWG was based on their expertise and experience in their relative professional fields and not as tied to a scenario-driven review, as was the case for the VWG. The resulting analysis by the SWG yielded a list of eight basic types of barriers:

- Organizational Culture Barriers
- Technology and Standards Barriers
- Staff Knowledge about Health Information Exchange Barriers
- Consumer Knowledge about Health Information Barriers
- In-house Resources for Information Management Barriers
- Privacy and Security Leadership Development Barriers
- Global Market Barriers
- Legal Barriers

Following the identification of root causes for the barriers to implementation, the SWG then grouped the root causes into related areas for solutions development. These are the solution areas that were identified:

- Benefits of regional exchange of health information
- Technology standards development
- Professional standards development
- Consumer education
- Staff education
- Inclusion of economically disadvantaged healthcare groups
- Quality assurance for electronic information exchange
- Legislation and enforcement

From these solution areas a specific solution was chosen from each area through a detailed ranking methodology process. The summary of each solution is found in Section 4 – Implementation Plans in this document.

To date, Illinois has not implemented any of the proposed solutions. The key assumption to all of these solutions is the development of the ILHIN. It is expected that these proposed solutions and implementation plans would serve as ILHIN's initial objectives.

Section 3 – Review of State Implementation Planning Process

The Implementation Planning Working Group (IWG) was formed as a continuation of the SWG. Membership and stakeholder representation are indicated in the table below.

Committee Members	Organization	Area/Industry of Expertise
Margret Amataykul, MBA, RHIA, CHPS, FHIMSS	Margret\A Consulting, LLC	EHR Consultant
Maria I. Ferrera	CCA Strategies LLC	Consumer Advocate
Steven Glass	Access Community Health Network	Healthcare/Ambulatory Information Technology
Joe Granneman, CISSP, CHSS, CNE, MCSE, CCA	Rockford Memorial Hospital	Healthcare/Inpatient Information Technology
Merida Johns, PhD, RHIA.	Bundling Board	HIM Expert
Vernel Johnson, MD	St. James Hospital	Emergency Medicine
Gary Nalley	University of Illinois Medical Center at Chicago	HIT Expert
Maria Pekar, MBA, JD	Loyola University Health System	Attorney/Risk Management
Lou Ann Schraffenberger, MBA, RHIA, CCS, CCS-P	Advocate Health Care	HIM Expert
Donna Schnepf, MHA, RHIA	Moraine Valley College	HIM Expert/Academic
Geraldine Smothers, MPA, RHIA, CSL, CPHQ	Professional Dynamic Network	HIM Expert/ILHIMA representative
Rachelle Stewart, DrPH, RHIA	University of Illinois at Chicago	Academic HIM
Neal Zeigler, MD	Baylor Medical Center	Emergency Medicine

Charge of IWG: The Implementation Working Group (IWG) is responsible for developing a detailed report on the implementation of the proposed solutions to privacy and security issues that impact the wide-spread electronic exchange of health information among organizations in and around the state of Illinois focusing at a minimum on the nine domain areas of privacy and security.

Leadership of the IWG: The project content development by the IWG was lead by team members Joe Granneman, Maria Pekar, Geraldine Smothers, and Rachelle Stewart, with assistance by the HISPC Steering Committee Chairman (HSC), Jonathan Dopkeen. The HISPC project management team provided facilitation for the IWG.

Stakeholder Representation by the IWG: A significant proportion of the members of the SWG are experts in health information management and information technology

systems. Other members include legal (risk management), physicians (emergency medicine), and a consumer advocate.

Criteria for prioritization of the solutions for both the analysis in the Interim Assessment of Solutions Report (IASR), as well as for moving forward with implementation planning for this report, were obtained by facilitated discussion in a combined meeting of the HSC, Legal Working Group (LWG), and SWG. The criteria were then weighted by nominal consensus. Solutions were ranked as to the degree to which they met each criterion by nominal consensus in an online survey open for all members of the HSC, LWG and SWG. A final weighted score for each solution was obtained by taking the consensus ranking for each solution, multiplying each rank by its criterion weight, and then summing all weighted rank scores. The solution with the highest consensus prioritization score for each solution area was selected for extended analysis in the IASR and IIPR. Details on this process can be found in the IASR. Feasibility was given the second-highest criterion weight, and thus contributed significantly in each solution's final weighted priority score.

The criterion of feasibility for the implementation plans was determined with the use of the consensus-derived feasibility criteria developed at the joint meeting between the HSC, SWG and LWG, and are as follows:

- Cost of implementation
- Lack of proven value of HIE
- Unidentified funding streams
- Complexity of systems and processes for implementation
- Change aversion
- Requirement for long-term organizational commitment
- Indeterminate consensus among stakeholders
- Unidentified resource availability

The SWG, during its deliberations for the selection of solutions to move forward for implementation, considered these eight aspects of feasibility for all proposed solutions, and ranked the solutions against one another by group consensus as to their overall feasibility during the prioritization process, as described above. Of the eight solutions selected for implementation planning, six of them were deemed to be the most feasible of all proposed solutions, one was the second-ranking most feasible, and one was third-ranking. The IWG chose by consensus to move forward with all eight solutions proposed by the SWG for implementation planning.

The implementation plans are prioritized and discussed in order according to the hierarchy of influence for the eight solutions as determined by the SWG. This hierarchy was determined by inter-relationship analysis of all the solution areas by the SWG, and this analysis revealed that efforts to promote the benefits of regional exchange of health information would be a major driver for HIE development in Illinois. As information became available to stakeholders concerning the cost effectiveness and positive impact on patient care and outcomes, this information could then act as a catalyst for the promotion of HIE developmental activities. Additionally, the adoption and promulgation of standards, for both technology and the professional development of leaders for security and privacy, would drive the development of HIE, because both the technical ability to exchange information would be enhanced by solutions

in these areas, as well as the organizational ability and will to do so. The promotion of education of both healthcare staff and consumers on electronic health records would assist even further in the development of HIE as familiarity with the technical processes developed, and trust of protections put in place became known and accepted. Major outcomes of efforts applied in benefit analysis, standards development, and education would be the facilitation of the inclusion of the economically disadvantaged, enhanced quality assurance of the systems put in place, and the adoption and enforcement of clear and timely legislation in support of security and privacy. This approach of identification of drivers and outcomes of the process defined the structure for the discussion of the implementation plans, as focus for action should be put upon those driving activities most likely to leverage development, and major outcomes would become key indicators of successful development.

Standard project management methodology was applied to all solutions. This included the use of project managers, defined timelines and milestones, and communication plans for accountability. As the implementation plans were all predicated on the creation of a central lead agency and/or authority for HIE development in Illinois, an agency which currently exists only in proposal stage with the Illinois General Assembly (the proposed ILHIN), these plans were developed with the intention to forward on to the ILHIN as proposed recommendations for implementation.

Section 4 – State-level Implementation Plans

Solution 1

Development of a systematic, comprehensive approach to promoting the benefits of Health Information Exchange (HIE)

Summary

A comprehensive, systematic approach to promoting the benefits of HIE was identified by the SWG as having the capability of significantly impacting the development of a robust infrastructure for HIE in Illinois. The specific solution to benefits promotion identified to be of highest priority for action was to determine the benchmarks for regional exchange of information, perhaps by a committee of industry (HIT and administrative) stakeholders, similar to that which was done for HIPAA transactions.

Barriers due to variations in information technology development from organization to organization could be alleviated by a standardized approach for information exchange. Variations in the organizational culture of physical/paper records, the culture of actions based on risk aversion and/or comfort rather than standards, the culture of market competition, the culture of organization type such as clinics vs. hospitals, public vs. private, etc., and the culture of ownership of data and not sharing it all would be affected by the creation of a level playing field brought about by benchmarking. Furthermore, benchmarked standards would by definition begin to create the infrastructure which does not exist currently in Illinois for the electronic exchange of information, such as a RHIO.

The establishment of benchmarks for regional exchange of information would impact all domains of privacy and security of information, as well as all stakeholders in HIE. Small pockets of exchange are occurring currently in Illinois, but efforts have been neither coordinated nor synchronized, so the development of standards for statewide applicability is essentially at a zero stage. Local standards, however, may prove to be productive starting points for the implementation of this solution.

Planning Assumptions and Decisions

The following are key assumptions in the implementation of Solution 1:

- ILHIN will be established and have the necessary resources available to devote to this solution.
- Local standards will be readily available and appropriate
- Benchmarking health information exchange is possible

Project Ownership and Responsibilities

Overall ownership of this solution will belong to the ILHIN. The ILHIN will have both fiscal jurisdiction and task assignment responsibility for the project.

Project Scope

Implementation of Solution 1 will provide a method for effectively promoting health information exchange (HIE). The project will include developing ways of measuring the effectiveness of HIE and promoting these measures among people and organizations who are leading the development of HIE initiatives within the state of Illinois as well as with organizations who are not actively participating in HIE development activities but deemed to be key stakeholders. The deliverables include a consensus-based set of benchmark measures that will be used to measure the effectiveness of health information exchange projects, including regional health information development. The project will also produce a methodology for promoting these measures. This project will require the formation of a team of HIE experts to develop the measures.

Project Timeline and Milestones

Task	Duration	Milestone
Project Start-up		
Confirm scope	5 days	
Identify budget	5 days	
Develop project charter and detailed project plan	5 days	
Develop communication plan	5 days	
Identify project team	5 days	
Conduct project kickoff	1 day	✓
Benchmark Identification		
Identify and acquire subject matter experts	10 days	
Assess local HIE initiatives	15 days	
Acquire local standards	30 days	
Research national RHIO initiatives	20 days	
Analyze local and national standards	20 days	
Develop benchmarking standards for Illinois	10 days	
Conduct external review of standards	30 days	
Revise standards based on external review	5 days	
Publish Illinois benchmarking standards	20 days	✓
HIE Promotion		
Develop marketing strategy	15 days	
Promote benchmarking findings to key stakeholders	60 days	✓

Solution Timeline



Projected Cost and Resources Required

Resource	Cost
Project Team Personnel (\$100/hr * 1000 man-hrs)	\$100,000
Subject Matter Expertise (\$125 * 200 man-hrs)	\$25,000
Marketing Expenses	\$50,000
TOTAL	\$175,000

Method for Tracking, Measuring, and Reporting Progress

A project manager will be assigned to run the project. The project manager will be responsible for all aspects of the project including successful completion and delivery of all work products and communication of project status to the appropriate identified stakeholders. The reporting structure and mechanism will be outlined in the project communication plan.

The project manager will generate and maintain a comprehensive project plan that will be regularly reviewed with ILHIN leadership. Weekly status meetings with the project team will be held. Also, staff members will provide weekly status reports to the project manager. In turn, the project manager will use these individual reports to generate a project status report to ILHIN executive staff. The frequency of the report will be outlined in the communication plan. The status reports will include milestones achieved during the reporting period, progress towards upcoming milestones, list of issues and potential risks, risk mitigation strategies, and a list of planned activities.

Issues and risks will be identified during weekly project status meeting. Assignment of issue resolution and development of risk mitigation strategies will be the responsibility of the project manager.

Stakeholder Impact Assessment

Stakeholders	Impacted
1: Clinicians	✓
2: Physician groups	✓
3: Federal health facilities	✓
4: Hospitals	✓
5: Payers	✓
6: Public Health agencies	✓
7: Community clinics	✓
8: Laboratories	✓
9: Pharmacies	✓
10: Long term care facilities	✓
11: Homecare and Hospice	✓
12: Law Enforcement	✓
13: Professional associations	✓
14: Academic research facilities	✓

Stakeholders	Impacted
15: Quality improvement organizations	✓
16: Consumers	✓
17: State government	✓
18: Homeless Shelters	✓

Feasibility Assessment

As part of the solution prioritization process, the SWG determined that ability to implement Solution 1 was very feasible. Although the cost of implementation is not insignificant, it is not daunting either. There has been significant work completed around the country regarding the establishment of RHIOs. As such, the needed information and expertise to complete this project is available. If the ILHIN becomes reality accompanied by adequate funding, it will indicate the political will to implement HIE is there. This is key to the successful implementation and proposed impact of Solution 1.

Potential Barriers

Barriers	Applicable to Solution 1
Cost of implementation	
Lack of proven value of HIE	✓
Unidentified funding streams	✓
Complexity of systems and processes for implementation	✓
Change aversion	✓
Requirement for long-term organizational commitment	✓
Indeterminate consensus among stakeholders	✓
Unidentified resource availability	✓
Delayed establishment or inappropriate governance structure of ILHIN	✓
Local standards are not readily available or appropriate	✓
Benchmarking health information exchanges are not possible	✓

Solution 2

Adopt universal standard for patient identification by all accrediting agencies, with official, verifiable means of identification defined, with both primary and secondary required (two factor identification).

Summary

The SWG determined that the single most important technical standard needed to move HIE forward in Illinois was for all accrediting agencies to adopt a universal standard for patient identification, with official, verifiable means of both primary and secondary identification defined.

This solution addresses, through standardization, the specific barrier of the technical challenge to patient identification. Furthermore, insufficient resources for language diversity to assure provision of information, and the adequate comprehension of information given, is addressed via a technical solution for patient identification. By the creation of a universal standard for this data field, the cultural barriers of organization type and of ownership of data and not sharing it are reduced by the creation of a reliable means of patient identification.

The type of information to be exchanged addressed by this solution is focused specifically on patient identification, Domain 3. Many stakeholder institutions in Illinois have electronic information management systems, and therefore have a means of patient identification. The degree of standardization that exists currently for the identification algorithms and data fields in use throughout the state is unknown. Adoption of a universal standard would impact all stakeholders with health information management systems, as well as any stakeholder accessing health information, thus impacting all stakeholders.

Planning Assumptions and Decisions

The following are key assumptions in the implementation of Solution 2:

- ILHIN will be established and have the necessary resources available to devote to this solution.
- Current electronic health information systems have the ability to store and utilize an additional patient identifier.
- Selection of a universal standard for patient identification is possible.
- There will be no nationally accepted unique patient identifier.

Project Ownership and Responsibilities

Overall ownership of this solution will belong to the ILHIN. The ILHIN will have both fiscal jurisdiction and task assignment responsibility for the project. The adoption of these standards will be the responsibility of the stakeholder organizations that engage in HIE.

Project Scope

Implementation of Solution 2 will provide a method for a universal standard of patient identification for adoption by organizations that participate in electronic health information

exchange in Illinois. The project will include developing ways of securing and promoting this standard with verifiable means of both primary and secondary identification, auditing and repudiation. The deliverable is a method for universal patient identification that includes confidentiality, integrity and availability. The universal patient identifier will include compatibility with existing legacy systems. It will include the ability to be implemented internally within existing systems or added on to systems without the capability to store this additional patient identification.

Project Timeline and Milestones

Task	Duration	Milestone
Project Start-up		
Confirm scope	30 days	
Determine budget including adoption incentive cost criteria	60 days	
Develop project charter and detailed project plan	15 days	
Develop communication plan	5 days	
Identify project team	20 days	
Conduct project kickoff	1 day	✓
Secure Identification Design		
Identify and acquire subject matter experts	15 days	✓
Research available secure electronic identification techniques available.	30 days	
Determine applicability of available secure electronic identification techniques.	15 days	
Analyze local and national standards	20 days	
Conduct external review of standards	30 days	
Revise standards based on external review	15 days	
Publish Illinois Patient Identification Standards	20 days	
Legacy System Compatibility		
Research major software vendors identifier capabilities	30 days	
Design system for legacy compatibility	180 days	
Develop methodology for stakeholders to achieve legacy compatibility.	30 days	
Provide methodology to stakeholder community	30 days	✓
Promote methodology adoption by stakeholder community by providing incentives for adoption	120 days	✓

Solution Timeline

Project Start-up



Secure Identification Design



Legacy System Compatibility



Projected Cost and Resources Required

Resource	Cost
Project Team Personnel (\$100/hr * 5000 man-hrs)	\$500,000
Subject Matter Expertise (\$125 * 3000 man-hrs)	\$375,000
Standards Promotion – Marketing	\$50,000
Adoption Incentives*	\$11,000,000
TOTAL	\$11,925,000

*Adoption Incentives are inducements that would encourage healthcare organizations to adopt the state-level recommendation for a patient identification methodology. This cost is based on each of Illinois’ 220 healthcare facilities (hospitals, psychiatric facilities, etc..) receiving an inducement worth \$50,000 in value. This incentive is meant to offset some of a facility’s cost of adopting the standard. The exact incentive is yet to be determined.

Method for Tracking, Measuring, and Reporting Progress

A project manager will be assigned to run the project. The project manager will be responsible for all aspects of the project including successful completion and delivery of all work products and communication of project status to the appropriate identified stakeholders. The reporting structure and mechanism will be outlined in the project communication plan.

The project manager will generate and maintain a comprehensive project plan that will be regularly reviewed with ILHIN leadership. Weekly status meetings with the project team will be held. Also, staff members will provide weekly status reports to the project manager. In turn, the project manager will use these individual reports to generate a project status report to ILHIN executive staff. The frequency of the report will be outlined in the communication plan. The status reports will include milestones achieved during the reporting period, progress towards upcoming milestones, list of issues and potential risks, risk mitigation strategies, and a list of planned activities.

Issues and risks will be identified during weekly project status meeting. Assignment of issue resolution and development of risk mitigation strategies will be the responsibility of the project manager.

Stakeholder Impact Assessment

Stakeholders	Impacted
1: Clinicians	✓
2: Physician groups	✓
3: Federal health facilities	✓
4: Hospitals	✓
5: Payers	✓
6: Public Health agencies	✓
7: Community clinics	✓
8: Laboratories	✓

Stakeholders	Impacted
9: Pharmacies	✓
10: Long term care facilities	✓
11: Homecare and Hospice	✓
12: Law Enforcement	✓
13: Professional associations	✓
14: Academic research facilities	✓
15: Quality improvement organizations	✓
16: Consumers	✓
17: State government	✓
18: Homeless Shelters	✓

Feasibility Assessment

As part of the solution prioritization process, the SWG determined that ability to implement Solution 2 was feasible. The cost of implementation is quite significant. Also, the topic of the establishment of a unique patient identifier is very contentious. Despite these challenges, the IWG felt that consensus could be garnered in Illinois for establishing a state-level standard methodology for identifying a patient. The IWG also felt that technology currently exists to accomplish this and that legacy systems could be cost-effectively retrofitted to handle this change. The state-level standard for patient identification would not necessarily supercede an organization's pre-established method. It will ensure that the organization has the data required to carry out the state-level patient matching methodology in order to effectively share information with another organization. This is key to the successful implementation and proposed impact of Solution 2.

Potential Barriers

Barriers	Applicable to Solution 2
Cost of implementation	✓
Lack of proven value of HIE	
Unidentified funding streams	✓
Complexity of systems and processes for implementation	✓
Change aversion	✓
Requirement for long-term organizational commitment	✓
Indeterminate consensus among stakeholders	✓
Unidentified resource availability	✓
Delayed establishment or inappropriate governance structure of ILHIN	✓
Local standards are not readily available or appropriate	✓
Assurance that participating facilities will consistently collect the required information	✓

Solution 3

Develop standards for consistent and available privacy and security expertise for organizations.

Summary

A recurring theme identified by the SWG was the impact of the inconsistent availability of privacy and security expertise in organizations. Privacy and security expertise are a critical element for the implementation and ongoing support of HIE. The solution proposed and prioritized by the SWG to address this was to define the professional qualifications for privacy and security officers. Included in the definition would be the requirement for such an officer within an organization, and that officer's specific roles and responsibilities.

By providing a standardized approach for organizations to assign roles and responsibilities for their privacy and security officers, this solution would address a number of barriers. Typically, organizations do not include privacy experts during the planning phase of an information technology implementation, and therefore increasing the likelihood that IT solutions would not have the appropriate patient privacy and security protections. Organizations often assign dual roles to one individual, such as legal counsel and privacy officer. This tends to spread staff too thin for effectiveness. Furthermore, there are no mandated national standards for privacy and security officers, there is a general lack of security officers for information technology statewide, and there is a lack of credentialing in both privacy and security officers. All of these contribute to an overall lack of organizational infrastructure for information edit checks, audits, and general quality assurance of health information.

The variations in information technology development from organization to organization, and resource availability from organization to organization both would be impacted positively by a delineation of roles and responsibilities for privacy and security within a specified individual. Legal expertise often resides in organizations outside of health information management staff. This division of responsibility would be alleviated by a joining of responsibilities under this solution. Variations in the culture of organization type would also be addressed by the creation of a standard approach to privacy and security leadership.

By adoption of this standardized organizational approach to privacy and security officers, the current lack of ongoing education for staff to understand the results and/or ramifications of the release of health information would be positively impacted by their role. This solution would provide for organizations a path to develop the adequate infrastructure and role delineation for the development and enforcement of all security, privacy, and information management policies and procedures.

Planning Assumptions and Decisions

The following are key assumptions in the implementation of Solution 3:

- ILHIN will be established and have the necessary resources available to devote to this solution.
- Organizations currently have individuals who possess knowledge of privacy and security guidelines

- Professional organizations will provide privacy and security training along with validation exams.
- Organizations will require evidence of privacy and security training/knowledge for those who hold related positions.

Project Ownership and Responsibilities

Overall ownership of this solution will belong to the ILHIN; however, shared parties will make this project a reality. Internal resources will be managed by the organizations. Training and certification is currently available via multiple professional organizations, i.e. the American Health Information Management Association (AHIMA), the Health Information Management Systems Society (HIMSS), but may also be expanded to other entities.

Project Scope

Implementation of Solution 3 will include identification of those in organizations that have privacy and security knowledge, establishment of privacy and security competencies (or acceptance of existing ones), required validation exams, and acceptance of such competencies for job descriptions of privacy and security positions related to health information and HIE. This project will require the formation of a team of privacy and security experts to develop the desired competencies.

Project Timeline and Milestones

Task	Duration	Milestone
Project Start-up		
Confirm scope	5 days	
Identify budget	5 days	
Develop project charter and detailed project plan	5 days	
Develop communication plan	5 days	
Identify project team	5 days	
Conduct project kickoff	1 day	✓
Model for Privacy and Security Officer Development		
Identify and acquire subject matter experts	10 days	
Assess level of available certification	15 days	✓
Determine if additional certifying groups are needed	15 days	
Develop model organizational privacy/security team	21 days	
Develop model security job description	21 days	
Develop model privacy officer job description	21 days	
Conduct review of models with field experts	30 days	
Revise job descriptions as needed	5 days	
Publish Privacy and Security Officer expertise standards to Illinois	20 days	✓
Model Promotion		
Develop marketing strategy	15 days	
Promote model to key stakeholders	60 days	✓

Solution Timeline

Project Start-up



Model Development



Model Promotion



Projected Cost and Resources Required

Resource	Cost
Project Team Personnel (\$100/hr * 500 man-hrs)	\$50,000
Subject Matter Expertise (\$125 * 160 man-hrs)	\$20,000
Marketing Expenses	\$50,000
TOTAL	\$120,000

Method for Tracking, Measuring, and Reporting Progress

A project manager will be assigned to run the project. The project manager will be responsible for all aspects of the project including successful completion and delivery of all work products and communication of project status to the appropriate identified stakeholders. The reporting structure and mechanism will be outlined in the project communication plan.

The project manager will generate and maintain a comprehensive project plan that will be regularly reviewed with ILHIN leadership. Weekly status meetings with the project team will be held. Also, staff members will provide weekly status reports to the project manager. In turn, the project manager will use these individual reports to generate a project status report to ILHIN executive staff. The frequency of the report will be outlined in the communication plan. The status reports will include milestones achieved during the reporting period, progress towards upcoming milestones, list of issues and potential risks, risk mitigation strategies, and a list of planned activities.

Issues and risks will be identified during weekly project status meeting. Assignment of issue resolution and development of risk mitigation strategies will be the responsibility of the project manager.

Stakeholder Impact Assessment

Stakeholders most impacted would be those organizations which produce and maintain health information, not necessarily those that would just access it, as it would be the producing organizations that would be required to have an identified privacy and security officer.

Stakeholders	Impacted
1: Clinicians	✓
2: Physician groups	✓
3: Federal health facilities	✓
4: Hospitals	✓
5: Payers	✓

Stakeholders	Impacted
6: Public Health agencies	✓
7: Community clinics	✓
8: Laboratories	✓
9: Pharmacies	✓
10: Long term care facilities	✓
11: Homecare and Hospice	✓
12: Law Enforcement	
13: Professional associations	
14: Academic research facilities	
15: Quality improvement organizations	
16: Consumers	
17: State government	
18: Homeless Shelters	✓

Feasibility Assessment

Despite disparate and inconsistent expertise in the area of privacy and security, there are existing certification exams available for those who provide privacy and security advice to others. The major barrier is the lack of mandated training and certification. The solution to this problem would be favorably impacted if positive connections are made with professional groups and organizations. Experts in the field can help to define core competencies for privacy and security expertise, similar to those currently required for the Joint Commission on Accreditation of Healthcare Organizations or related organizations. There is precedence for a multidisciplinary approach to privacy and security expertise teams, as seen with patient care activity at all levels. Finally, general privacy and security guidelines are available at the national and state level. HIPAA regulations serve as the national template for such guidelines and are supplemented with more stringent state requirements.

Potential Barriers

Barriers	Applicable to Solution 3
Cost of implementation	
Lack of proven value of HIE	
Unidentified funding streams	
Complexity of systems and processes for implementation	✓
Change aversion	✓
Requirement for long-term organizational commitment	✓
Indeterminate consensus among stakeholders	✓
Unidentified resource availability	
Delayed establishment or inappropriate governance structure of ILHIN	✓

Solution 4

Establishment of core competencies for staff education and training in Electronic Health Information, Privacy, and Security.

Summary

The SWG recognized that while education and training in privacy and security is a key function in health care, this training is not sufficient for the demands and changes that will be necessary in an electronic environment. One of the greatest barriers to successful implementation of electronic HIE is the lack core competencies in education and training to ensure staff knowledge and understanding the overall goals of HIE. In addition to understanding HIE, understanding their roles, responsibilities, expectations, and the consequences as they relate to privacy, security, and confidentiality.

The SWG discussed variations in staff experience, knowledge, expertise, and training in understanding key elements related to HIE, and how staff knowledge, or lack thereof, has an impact on the implementation of HIE and the protection of privacy and security. As a solution to the variations experienced in staff knowledge, expertise, and training, the SWG recommended to establish core competencies for staff education, to include not only privacy and security training, but awareness of the technical issues relevant to their job responsibilities and electronic health information.

This solution addresses the perception that there is a lack of ongoing education for staff to understand the results and /or ramifications of the release of health information, that there is a lack of standardized educational materials that have been developed for sufficient evaluation of effectiveness, that there is a lack of understanding by staff of what is appropriate and what is not in the exchange of health information, and that there is a lack of ways to share educational materials. Defined core competencies would provide the educational foundation for effective training in all aspects of health information management and exchange. Organizations sometimes have a culture of diminished value of staff continuing education. Having core competencies defined will enable institutions to target their training funds effectively to help overcome this. In addition, there are not mandated national standards for privacy and security officers, and this solution would include the development of core competencies for these staff as well. The fear of breaking the law that persons involved in the exchange of health information have could be directly reduced by the providing staff with the sufficient and complete information they need in order to perform their functions.

Planning Assumptions and Decisions

The following are key assumptions in the implementation of Solution 4:

- ILHIN will be established and have the necessary resources available to devote to this solution.
- Stakeholders will value core competencies as essential to the effectiveness of HIE.
- An assortment of educational material on core competencies will be available for research and review.
- Benchmarking for core competencies is available.

Project Ownership and Responsibilities

The ownership and responsibility for this project is expected to be ILHIN. The ILHIN will have the responsibility for fiscal jurisdiction and task assignment responsibility. Secondary ownership resides in all stakeholder organizations that will be expected to promulgate the competencies through their educational program development.

Project Scope

The implementation of education based on core competencies will promote standardized skills and knowledge that will foster patient, employee and customer satisfaction in the long term. The project will include defining core competencies for privacy and security, credentialing, policies and procedures, release of information, HIPAA compliance, standardization, information technology elements, and other key components that may be identified in the future. The project will include development of educational materials to ensure consistency in curriculum and inclusion of the components: privacy and security, policies and procedures, for teaching core competencies. Deliverables include, but may not be limited to: project team to ensure completion of the project; key documents, definitions, and curriculum; core competencies for each function defined in the process of implementation, i.e., privacy and security; and templates of policies and procedures as applicable. This project will require organization of a collaborative team of experts to develop and implement the core competencies.

Project Timeline and Milestones

Task	Duration	Milestones
Project Start-up		✓
Confirm Project Scope	5 days	
Establish budget	5 days	
Develop project goals and objectives	5 days	
Develop detail project plan	10 days	
Develop Communication plan	5 days	
Establish an effective communication system to communicate plan	5 days	
Identify project team and team leader	10 days	
Conduct project kickoff	1 day	✓
Core Competencies Development		
Identify an acquire subject matter experts	10 days	
Assess local HIE initiatives	15 days	
Develop model competencies	15 days	
Develop model curriculum	15 days	
Develop model policies	15 days	
Research and analyze corporate/business core competencies in healthcare , non healthcare, accreditation and regulatory environments	15 days	
Establish benchmarks with key stake holders	10 days	
Define core competencies and methods of measurement involve stakeholders	20 days	✓

Task	Duration	Milestones
Get agreement on core competencies with stakeholders	20 days	
Publish core competencies	30 days	
Competencies Promotion		
Develop Marketing strategy	20 days	
Promote core competencies to users and key stakeholders	60 days	✓

Solution Timeline



Projected Cost and Resources Required

Resource	Cost
Project Team Staffing (\$80/hr*1500 man-hrs)	\$120,000
Stakeholders expense	\$25,000
Supplies, Materials, Printing	\$30,000
Public Relations and Marketing	\$50,000
Total	\$225,000

Method for Tracking, Measuring, and Reporting Progress

A project manager will be assigned to manage the project. The project manager will be responsible for all aspects of the project including successful completion and delivery of all work products and communication of project status to the appropriate identified stakeholders. The reporting structure and mechanism will be outlined in the project communication plan.

The project manager will generate and maintain a comprehensive project plan that will be regularly reviewed with ILHIN leadership. Weekly status meetings with the project team will be held. Also, staff members will provide weekly status reports to the project manager. In turn, the project manager will use these individual reports to generate a project status report to ILHIN executive staff. The frequency of the report will be outlined in the communication plan. The status reports will include milestones achieved during the reporting period, progress towards upcoming milestones, list of issues and potential risks, risk mitigation strategies, and a list of planned activities.

Issues and risks will be identified during weekly project status meeting. Assignment of issue resolution and development of risk mitigation strategies will be the responsibility of the project manager.

Stakeholder Impact Assessment

All stakeholders would be impacted, with the exception of QIOs, consumers and state government, as these stakeholders would not have staff directly involved in HIE.

Stakeholders	Impacted
1. Clinicians	✓
2. Physicians Groups	✓
3. Federal Qualified Healthcare Facilities	✓
4. Hospitals	✓
5. Payers	✓
6. Public Health Agencies	✓
7. Community Clinics	✓
8. Laboratories	✓
9. Pharmacies	✓
10. Long Term Care Facilities	✓
11. Homecare and Hospice	✓
12. Law Enforcement	✓
13. Professional Associations	✓
14. Academic Research Facilities	✓
15. Quality Improvement Organizations	
16. Consumers	
17. State Government	
18. Homeless Shelters	✓

Feasibility Assessment

The feasibility for implementation of Solution 4 was determined to be highly feasible by the SWG. There are multiple groups of experts in healthcare available to achieve the definitions for core competencies. The educational process required to facilitate core competencies is achievable. In addition, the concept of core competencies is well documented in the literature. While cost is a factor in all implementation processes, the cost for the implementation of Solution 4 would be outweighed by the impact of a potential negative patient outcome due to staff incompetence. Health care providers want no less than individuals who are competent and capable of performing their duties and responsibilities well. In addition, HIE done incorrectly is a risk with legal implications. Although there are privacy, security, and confidentiality laws such as HIPAA, and institutional policies and procedures for privacy and security protection, defined core competencies to abide by these laws and follow these procedures are absent. Therefore, the positive impact that this solution would have on patient care is significant. The key to successful implementation of Solution 4 is a commitment to core competencies from ILHIN or the designated authority body.

Potential Barriers

Feasibility Barriers	Applicable to Solution 4
Cost of implementation	✓
Lack of proven value of HIE	✓
Unidentified funding streams	✓
Complexity of systems and processes for implementation	✓
Change aversions	✓
Requirement for long-term organizational commitment	✓
Indeterminate consensus among stakeholders	✓
Unidentified resource availability	✓

Solution 5

Develop educational materials for consumers to be distributed by providers and other stakeholder organizations.

Summary

This solution directly responds to the perceived lack of consumer knowledge about health information. The public fears discrimination from the use of patient identifiers, and therefore could be reluctant to allow HIE. There is a general lack of understanding by the public of electronic health records and personal medical records in general, which could contribute also to this reluctance. There is a perception by the public concerning the lack of security of electronic records, which has been made even more public through security of information breaches in other sectors, such as banking. Materials developed to allay these fears and misperceptions, as well as provide consumers with the information they need concerning their rights in the matter of their health information are critical to moving implementation of HIE forward.

There are no mandated national standards for privacy and security officers. The defining of the core competencies for professional staff identified as necessary in Solution 4, and the active participation of privacy and security officers in the development and delivery of consumer information for their organizations will ensure consumers are provided with clear and accurate assurances of their rights.

Planning Assumptions and Decisions

The following are key assumptions in the implementation of Solution 5:

- ILHIN will be established and have the necessary resources available to devote to this solution.
- Providers will welcome well-developed, plain language materials to address patient fears about electronic information.
- Consumers will accept the wide-spread usage of electronic information with proper education

Project Ownership and Responsibilities

Overall ownership of this solution will belong to the ILHIN. The ILHIN will have both fiscal jurisdiction and task assignment responsibility for the project. Secondary ownership will reside with providers, whose responsibility it will be to deliver the patient education materials.

Project Scope

Implementation of Solution 5 will develop educational materials for providers that will be distributed by providers. Educational materials will include but not be limited to: pamphlets, CD's, videos, and on-line modules. The portfolio of materials would be updated on a regular basis, as needed, and made available to providers at cost, or minimal profit. Standard language templates could be maintained on a ILHIN website. Consumers from various populations will be involved in the development of the above materials for validation. This project will require the formation of a marketing team to develop the materials.

Project Timeline and Milestones

Task	Duration	Milestone
Project Start-up		
Confirm scope	5 days	
Identify budget	30 days	
Develop project charter and detailed project plan	5 days	
Develop communication plan	5 days	
Identify project team	5 days	
Conduct project kickoff	1 day	✓
Educational Materials Development		
Identify and acquire subject matter experts	10 days	
Develop and conduct survey of providers to determine needs	30 days	✓
Develop and conduct survey of consumers to determine needs	30 days	✓
Develop top three communication products	30 days	✓
Review products with sample providers	30 days	
Made necessary changes to products	20 days	
Decide best method of dissemination	5 days	
Education Promotion		
Develop marketing strategy	15 days	
Promote educational materials to key stakeholders	60 days	✓

Solution Timeline

Project Start-up



Materials Development



Education Promotion



Projected Cost and Resources Required

Resource	Cost
Project Team Personnel (\$100/hr * 1000 man-hrs)	\$100,000
Subject Matter Expertise (\$125 * 200 man-hrs)	\$25,000
Marketing Expenses	\$75,000
TOTAL	\$200,000

Method for Tracking, Measuring, and Reporting Progress

A project manager will be assigned to run the project. The project manager will be responsible for all aspects of the project including successful completion and delivery of all work products and communication of project status to the appropriate identified stakeholders. The reporting structure and mechanism will be outlined in the project communication plan.

The project manager will generate and maintain a comprehensive project plan that will be regularly reviewed with ILHIN leadership. Weekly status meetings with the project team will be held. Also, marketing team staff members will provide weekly status reports to the project manager. In turn, the project manager will use these individual reports to generate a project status report to ILHIN executive staff. The frequency of the report will be outlined in the communication plan. The status reports will include milestones achieved during the reporting period, progress towards upcoming milestones, list of issues and potential risks, risk mitigation strategies, and a list of planned activities.

Issues and risks will be identified during weekly project status meeting. Assignment of issue resolution and development of risk mitigation strategies will be the responsibility of the project manager.

Stakeholder Impact Assessment

Stakeholders impacted by the implementation of Solution 5 are those who would collect patient information for HIE, would directly provide services for patients, and the patients themselves. Stakeholders who act primarily as consumers of health information data such as professional organizations and academic research facilities would not be impacted as directly. However, the quantity and quality of data available to these types of stakeholders would be indirectly impacted by the degree to which the educational efforts as a result of the solution would increase consumer participation in HIE.

Stakeholders	Impacted
1: Clinicians	✓
2: Physician groups	✓
3: Federal health facilities	✓
4: Hospitals	✓
5: Payers	✓
6: Public Health agencies	✓
7: Community clinics	✓
8: Laboratories	✓
9: Pharmacies	✓
10: Long term care facilities	✓
11: Homecare and Hospice	✓
12: Law Enforcement	
13: Professional associations	
14: Academic research facilities	
15: Quality improvement organizations	✓
16: Consumers	✓
17: State government	✓
18: Homeless Shelters	✓

Feasibility Assessment

As part of the solution prioritization process, the SWG determined that ability to implement Solution 5 was the most feasible of all solutions proposed. Although the cost of implementation is not insignificant, it is within the realm of feasibility, and the benefits to quantity and quality of information available for HIE could be very positively impacted by the implementation of consumer education. Barriers to consumer educational efforts include change aversion in both consumers and providers, the former of which would as expected be more comfortable with the known world of paper as opposed to the unknown world of electronic information, and the latter, who might prefer to continue to exert internal control over the information provided to their patients. Another barrier might be the need for long-term organizational commitment by providers to provide ongoing education to their patients in an ever changing and developing electronic world. Lastly, the consensus among stakeholders concerning what defines the recommended levels of participation in HIE, properly balanced with the patient right to secure and private information, is at this time indeterminate.

Potential Barriers

As with all the solutions developed for the protection of privacy and security in the implementation of HIE for Illinois, the creation of the ILHIN is key to the successful implementation and proposed impact of Solution 5. Without a central agency to develop and promote standardized consumer educational materials, a unified message is practically impossible. Non-standardized, or even mixed, messages to consumers about their rights to private and secure health information and the functionalities of HIE will only serve to continue the current climate of fear and misunderstanding that could hamper the implementation of HIE.

Barriers	Applicable to Solution 5
Cost of implementation	✓
Lack of proven value of HIE	
Unidentified funding streams	✓
Complexity of systems and processes for implementation	
Change aversion	✓
Requirement for long-term organizational commitment	✓
Indeterminate consensus among stakeholders	✓
Unidentified resource availability	
Delayed establishment or inappropriate governance structure of ILHIN	✓

Solution 6

Extend and promote, in discussion with State's Attorney General, national Stark, e-prescribing and anti-kickback relief regulations, so those who are advantaged can support those who are disadvantaged.

Summary

The Stark, Anti-kickback relief and e-prescribing regulations allow for the donation of software and in some cases, hardware and training by hospitals to physician practices and other health care providers. In addition to this, it was proposed by the SWG that this federal relief be extended and promoted such that hospitals are allowed and possibly induced to provide physicians and other practitioners that are serving economically disadvantaged populations with not only hardware, software, and training, but also additional technical resources to implement and support the technology.

This solution addresses the variations in resource availability from organization to organization. In particular those individuals/entities that are unable to afford an EHR will not be able to effectively exchange health information and thus would not be able to contribute to or benefit from HIE. This solution helps ensure these individuals/entities are provided the technology that will serve as the necessary conduit to the ILHIN and ultimately the NHIN.

Planning Assumptions and Decisions

The following are key assumptions in the implementation of Solution 6:

- ILHIN will be established and have the necessary resources available to devote to this solution.
- Taskforce members will gain an overall understanding of the applicable regulations and their existing limitations
- Benchmarking optimal regulatory relief will be possible
- Support from the federal government will be obtained

Project Ownership and Responsibilities

Overall ownership of this solution will belong to the ILHIN. The ILHIN will have both fiscal jurisdiction and task assignment responsibility for the project.

Project Scope

Implementation of Solution 6 will provide a method for changing and/or creating new legislation that will provide for a means by which advantaged health care providers can contribute to the promotion of HIE capacity in disadvantaged providers.

The purpose of the project is to enhance, where needed, existing HIE laws. The project's objective is to develop proposed ways to extend and promote, in discussion with State's Attorney General, national Stark, e-prescribing and anti-kickback relief regulations, so those who are advantaged can support those who are disadvantaged. The deliverables include proposed amendments to the above-stated regulations and others where appropriate. The project will also produce a methodology for promoting these amendments. This project will require the formation

of a team of legal experts to develop the amendments who can also understand contractual limitations that hospitals may have with existing software vendors regarding rights to sublicense, etc. The team should also include representatives from IFQHC, the affected industries (e.g., hospital, individual practitioner, lab), the federal and state Attorney Generals' offices, a HIT vendor and CMS.

Project Timeline and Milestones

Task	Duration	Milestone
Project Start-up		
Confirm scope	5 days	
Identify budget	5 days	
Develop project charter and detailed project plan	5 days	
Develop communication plan	5 days	
Identify project team	5 days	
Conduct project kickoff	1 day	✓
Develop Amendments		✓
Identify and understand existing laws & pending legislation	15 days	
Review literature on existing amendments to identify where they could be improved	15 days	
Research governmental relief mechanisms afforded to providers in other countries where HIT systems have matured to capitalize on knowledge already in existence	15 days	
Analyze laws, literature and other governmental relief mechanisms to identify keys to successful HIT initiatives	15 days	
Determine where inadequacies exist in current laws	15 days	
Develop suggested amendments	30 days	
Conduct external review of proposed amendments	30 days	
Revise amendments based on external review	5 days	
Publish Illinois suggested amendments	20 days	✓
Promote Amendments		✓
Develop marketing strategy	15 days	
Promote amendments to key stakeholders	60 days	

Solution Timeline



Projected Cost and Resources Required

Resource	Cost
Project Team Personnel (\$100/hr * 1000 man-hrs)	\$100,000
Subject Matter Expertise (\$125 * 200 man-hrs)	\$25,000
Marketing Expenses	\$50,000
TOTAL	\$175,000

Method for Tracking, Measuring, and Reporting Progress

A project manager will be assigned to run the project. The project manager will be responsible for all aspects of the project including successful completion and delivery of all work products and communication of project status to the appropriate identified stakeholders. The reporting structure and mechanism will be outlined in the project communication plan.

The project manager will generate and maintain a comprehensive project plan that will be regularly reviewed with ILHIN leadership. Weekly status meetings with the project team will be held. Also, staff members will provide weekly status reports to the project manager. In turn, the project manager will use these individual reports to generate a project status report to ILHIN executive staff. The frequency of the report will be outlined in the communication plan. The status reports will include milestones achieved during the reporting period, progress towards upcoming milestones, list of issues and potential risks, risk mitigation strategies, and a list of planned activities.

Issues and risks will be identified during weekly project status meeting. Assignment of issue resolution and development of risk mitigation strategies will be the responsibility of the project manager.

Stakeholder Impact Assessment

Stakeholders impacted would include all those who provide healthcare and for whom the Stark, Anti-Kickback and e-prescribing regulations apply, as well as consumers who have been historically underserved.

Stakeholders	Impacted
1: Clinicians	✓
2: Physician groups	✓
3: Federal health facilities	✓
4: Hospitals	✓
5: Payers	✓
6: Community clinics	✓
8: Laboratories	
9: Pharmacies	
10: Long term care facilities	
11: Homecare and Hospice	
12: Law Enforcement	
13: Professional associations	
14: Academic research facilities	

Stakeholders	Impacted
15: Quality improvement organizations	
16: Consumers	✓
17: State government	
18: Homeless Shelters	

Feasibility Assessment

As part of the solution prioritization process, the SWG determined that ability to implement Solution 6 was feasible. Although the legal hurdles to overcome are significant, they are conquerable. Individuals with the expertise needed to analyze the existing laws are readily available. Further, there has already been legislative and agency support provided, as evidenced by several recent legislative initiatives and some published safe-harbors. As such, the needed expertise and support to complete this project is available. If the ILHIN becomes a reality accompanied by adequate funding, it will indicate the political will to implement HIE is there. This is key to the successful implementation and proposed impact of Solution 6.

Potential Barriers

Barriers	Applicable to Solution 6
Cost of implementation	✓
Lack of proven value of HIE	✓
Unidentified funding streams	✓
Complexity of systems and processes for implementation	✓
Change aversion	✓
Requirement for long-term organizational commitment	✓
Indeterminate consensus among stakeholders	✓
Unidentified resource availability	✓
Delayed establishment or inappropriate governance structure of ILHIN	✓

Solution 7

Provide recommendations for use of multidisciplinary teams in the acquisition of new information technology (IT) solutions . These teams should include at least the Chief Information Officer, end users such as the clinical department, finance, quality management, and HIM, and the security and privacy officer.

Summary

As efforts to develop and implement HIE move forward, systems and procedures for quality assurance and data integrity will naturally evolve out of technical standardization and staff education. As a priority to further the development of quality assurance for HIE, the SWG proposed to provide recommendations for multidisciplinary teams for acquisition of new IT solutions to include at least the Chief Information Officer, end users (clinical department, finance, quality management, HIM), and the security and privacy officer.

This solution addresses an identified lack of organizational infrastructure for information edit checks, audits, and general quality assurance of health information in Illinois. Ensuring a full spectrum of stakeholders for decision-making and choosing of information management solutions will enable organizations to acquire systems with the greatest capacity to meet all needs, including that of data integrity and quality assurance.

Planning Assumptions and Decisions

The following are key assumptions in the implementation of Solution 7:

- ILHIN will be established and have the necessary resources available to devote to this solution.
- Smaller stakeholder organizations will have sufficient diversity of personnel in an IT acquisition team, even when staff members perform multiple roles for their agency, to assure all aspects of data management and integrity are addressed in the acquisition process
- Technical standards for recommendations will be available

Project Ownership and Responsibilities

Overall ownership of this solution will belong to the ILHIN. The ILHIN will have both fiscal jurisdiction and task assignment responsibility for the project. Secondary ownership belongs to all health information management stakeholders who would acquire IT systems according to the standards promulgated by the ILHIN.

Project Scope

Implementation of Solution 7 will provide a method for developing a comprehensive team for the acquisition of IT for the implementation of HIE. The project will include assessment of current local methodologies for acquiring IT systems for HIE, and a consensus-based set of benchmark measures of best practices for data integrity technical standards. The project will also produce a methodology for promoting these measures. This project will require the formation of a team of HIE experts to develop the measures. This team will most likely be the same HIE experts identified in Solution 1, as the scope of these two solutions overlap to a degree due to role of data integrity issues in successful regional exchanges of information.

Project Timeline and Milestones

Task	Duration	Milestone
Project Start-up		
Confirm scope	5 days	
Identify budget	5 days	
Develop project charter and detailed project plan	5 days	
Develop communication plan	5 days	
Identify project team	5 days	
Conduct project kickoff	1 day	✓
IT Acquisition Standards Development		
Identify and acquire subject matter experts	10 days	
Assess local methods for acquisition	15 days	
Assess local and national standards for data integrity	20 days	
Develop benchmarking standards for Illinois	10 days	
Conduct external review of standards	30 days	
Revise standards based on external review	5 days	
Publish Illinois acquisition standards	20 days	✓
Standard IT Acquisition Promotion		
Develop educational tools and other resources	120 days	
Promote standardized acquisition team recommendations to key stakeholders	60 days	✓

Solution Timeline

Project Start-up



IT Acquisition Standards



Standards Promotion



Projected Cost and Resources Required

Resource	Cost
Project Team Personnel (\$100/hr * 500 man-hrs)	\$50,000
Subject Matter Expertise (\$125 * 100 man-hrs)	\$12,500
Educational Expenses	\$10,000
TOTAL	\$72,500

Method for Tracking, Measuring, and Reporting Progress

A project manager will be assigned to run the project. The project manager will be responsible for all aspects of the project including successful completion and delivery of all work products and communication of project status to the appropriate identified stakeholders. The reporting structure and mechanism will be outlined in the project communication plan.

The project manager will generate and maintain a comprehensive project plan that will be regularly reviewed with ILHIN leadership. Weekly status meetings with the project team will be held. Also, staff members will provide weekly status reports to the project manager. In turn, the project manager will use these individual reports to generate a project status report to ILHIN executive staff. The frequency of the report will be outlined in the communication plan. The status reports will include milestones achieved during the reporting period, progress towards upcoming milestones, list of issues and potential risks, risk mitigation strategies, and a list of planned activities.

Issues and risks will be identified during weekly project status meeting. Assignment of issue resolution and development of risk mitigation strategies will be the responsibility of the project manager.

Stakeholder Impact Assessment

Stakeholders impacted by the implementation of Solution 7 are those who would acquire IT systems for HIE. Stakeholders who act primarily as consumers of health information would not be impacted as directly.

Stakeholders	Impacted
1: Clinicians	✓
2: Physician groups	✓
3: Federal health facilities	✓
4: Hospitals	✓
5: Payers	✓
6: Public Health agencies	✓
7: Community clinics	✓
8: Laboratories	✓
9: Pharmacies	✓
10: Long term care facilities	✓
11: Homecare and Hospice	✓
12: Law Enforcement	
13: Professional associations	
14: Academic research facilities	
15: Quality improvement organizations	
16: Consumers	
17: State government	
18: Homeless Shelters	✓

Feasibility Assessment

As part of the solution prioritization process, the SWG determined that ability to implement Solution 7 was very feasible. Although the cost of implementation is not insignificant, cost savings could be accomplished through joint development with Solution 1. The development of a standardized approach for IT systems acquisition could be hampered by the overall complexity of systems and processes for implementation, as well as a lack of long-term organizational

commitment by stakeholders to adopt the standards, and indeterminate consensus among stakeholders about the validity of those standards.

Potential Barriers

As with all the solutions developed for the protection of privacy and security in the implementation of HIE for Illinois, the creation of the ILHIN is key to the successful implementation and proposed impact of Solution 7.

Barriers	Applicable to Solution 7
Cost of implementation	
Lack of proven value of HIE	
Unidentified funding streams	
Complexity of systems and processes for implementation	✓
Change aversion	
Requirement for long-term organizational commitment	✓
Indeterminate consensus among stakeholders	✓
Unidentified resource availability	
Delayed establishment or inappropriate governance structure of ILHIN	✓

Solution 8

Include in lead state agency/organization legal staff with expertise in privacy and security to guide integrated state efforts

Summary

In December 2006, the EHRTF recommended that the Illinois Legislature adopt legislation charging the Illinois Department of Public Health (IDPH) with responsibility for advancing Illinois' EHR and HIE initiatives and requiring the Department to establish a public-private partnership with a new not-for-profit organization, named the Illinois Health Information Network (ILHIN) and governed by stakeholders in the health care system. The EHRTF Report proposed that the first few years of ILHIN's existence be devoted to designing the state-level HIE, supporting pre-cursor HIE activities and pilot projects, and funding initiatives to foster EHR and HIE adoption. The ILHIN also will need to monitor and make recommendations to IDPH regarding the impact of state and federal legislation on Illinois EHRs. In conjunction with this proposal to establish a lead agency for HIE development in Illinois, the SWG proposed that legal staff with expertise in privacy and security to guide integrated state efforts be included in this lead state agency/organization.

The inclusion of privacy and security expertise at the highest level of HIE developmental efforts in Illinois will address a number of barriers identified in the Legal Barriers. These barriers include persons involved in the exchange of health information fear breaking the law, the interpretation of laws concerning health information varies from organization to organization, and there is a lack of national guidelines for the interpretation of laws concerning health information. If the ILHIN is formed as recommended, it will be authorized to provide technical and organizational assistance toward the expansion and adoption of EHR use.

Inclusion of legal technical assistance to organizations and state agencies with health information statutory responsibility will facilitate the development of consistent legislation, policies, and procedures. Guidelines for interpretation and application would more likely be standardized with this central authority approach. There are no mandated national standards for privacy and security officers. There is also a lack of a centralized authority or organization for the privacy and security of health information. The creation of the ILHIN and the establishment of its legal expertise would directly impact these barriers.

A central authority with legal expertise will also impact barriers in Staff Knowledge About Health Information Exchange Barriers (There is a lack of ongoing education for staff to understand the results and/or ramifications of the release of health information), and Technology and Standards Barriers (There are no national requirements for information system interoperability; There is no standardization in security protocols and interfaces).

Planning Assumptions and Decisions

The following are key assumptions in the implementation of Solution 8:

- ILHIN will be established and have the necessary resources available to devote to this solution.
- Legal expertise in the health information security and privacy domain will be available to the ILHIN.
- Hiring can occur in a timely enough manner to impact the development of other activities related to the implementation of EHR

Project Ownership and Responsibilities

Overall ownership of this solution will belong to the ILHIN. The ILHIN will have both fiscal jurisdiction and task assignment responsibility for the project.

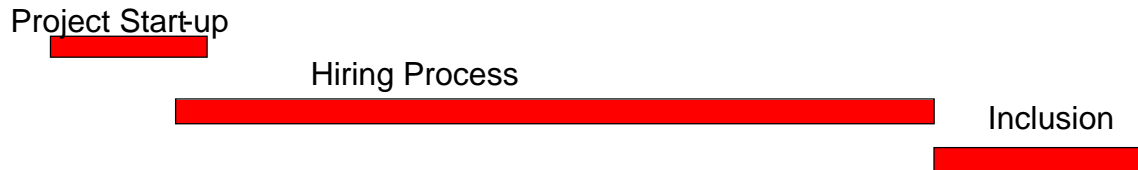
Project Scope

Implementation of Solution 8 will provide a means to align HIE implementation efforts with privacy and security protection through the provision of legal expertise to the agency which will lead those efforts. The objectives of the project will be to define the legal counsel job, identify the knowledge, skills, and abilities required to do the job effectively, and carry out the hiring process to select a candidate for the position. Once the candidate is hired, the project will also produce tasks and their priorities for the new position. The project will require the formation of a hiring team to assist in the interview and selection process.

Project Timeline and Milestones

Task	Duration	Milestone
Project Start-up		
Confirm scope	5 days	
Identify budget	20 days	
Develop job description	5 days	
Develop communication plan	5 days	
Develop knowledge, skills, and abilities sought	5 days	
Identify hiring team	5 days	
Identify desired job advertisement venue(s)	5 days	
Post job	1 day	✓
Hiring Process		
Collect applications	30 days	
Review and screen applications	5 days	
Schedule interviews	5days	
Conduct interviews with team	20 days	✓
Check references	5 days	
Select candidate	5 days	
Finalize hiring	30 days	✓
Privacy and Security Legal Expertise Inclusion in Development of Legislation, Policies and Procedures		
Develop reporting structure for legal counsel	5 days	
Develop task priorities for legal counsel	30 days	✓

Solution Timeline



Projected Cost and Resources Required

Resource	Cost
Project Team Personnel (\$100/hr * 250 man-hrs)	\$25,000
Job Advertising Expenses	\$5,000
TOTAL	\$30,000

Method for Tracking, Measuring, and Reporting Progress

A hiring manager will be assigned to run the project. The hiring manager will be responsible for all aspects of the project including successful completion and delivery of all work products and communication of project status to the appropriate identified stakeholders. The reporting structure and mechanism will be outlined in the project communication plan.

The hiring manager will generate and maintain a comprehensive project plan that will be regularly reviewed with ILHIN leadership. The hiring manager will generate a project status report to ILHIN executive staff. The frequency of the report will be outlined in the communication plan. The status reports will include milestones achieved during the reporting period, progress towards upcoming milestones, list of issues and potential risks, risk mitigation strategies, and a list of planned activities. Assignment of issue resolution and development of risk mitigation strategies will be the responsibility of the hiring manager.

Stakeholder Impact Assessment

Stakeholders	Impacted
1: Clinicians	✓
2: Physician groups	✓
3: Federal health facilities	✓
4: Hospitals	✓
5: Payers	✓
6: Public Health agencies	✓
7: Community clinics	✓
8: Laboratories	✓
9: Pharmacies	✓
10: Long term care facilities	✓

Stakeholders	Impacted
11: Homecare and Hospice	✓
12: Law Enforcement	✓
13: Professional associations	✓
14: Academic research facilities	✓
15: Quality improvement organizations	✓
16: Consumers	✓
17: State government	✓
18: Homeless Shelters	✓

Feasibility Assessment

As part of the solution prioritization process, the SWG determined that ability to implement Solution 8 was feasible. Although the cost of implementation is not insignificant, it is not daunting either. There are several nationally recognized certifications focused on the privacy and security of electronic information. As such, the needed information and expertise to complete this project is available. If the ILHIN becomes reality accompanied by adequate funding, it will require the privacy/security expertise in order to be successful and promote the safety of electronic health information exchange. This solution is key to the successful implementation of ILHIN.

Potential Barriers

Barriers	Applicable to Solution 8
Cost of implementation	
Lack of proven value of HIE	
Unidentified funding streams	
Complexity of systems and processes for implementation	✓
Change aversion	✓
Requirement for long-term organizational commitment	✓
Indeterminate consensus among stakeholders	✓
Unidentified resource availability	
Delayed establishment or inappropriate governance structure of ILHN	✓

Section 5 – Multi-state Implementation Plan

Aside from the eight solutions discussed in Section 5, there were several solutions recommended by the SWG that had national implications. Primarily, these solutions require activity from the Federal government. The solutions fall into two areas. Either they are recommendations for clarification of existing federal law or they are requests for development of new laws. State activity would include the convening of a multi-state taskforce that would either develop model legislation for a new law or development of a response for clarification of an existing law. Neither task seems to require the development of an implementation plan. The national-level solutions recommended by the Illinois SWG are listed below.

National-level Solutions

Requests for clarification of HIPAA Privacy and Security requirements. In exchanging patient information for non-emergent treatment reasons, stakeholders have stated that they try to uphold the HIPAA “minimum necessary” guidelines. There is no clear definition of what “minimum necessary” should consist of in any given situation. The level of information provided varies not only from organization-to-organization but also between people within the same organization. Further, it appears that HIPAA’s “minimum necessary” standard is being applied in practice to exchanges among providers for treatment purposes even though the HIPAA Privacy Rule does not require it. Similarly, it seems to be common practice to require the patient’s written authorization in non-urgent information exchanges even though HIPAA does not require it for exchanges among providers. It may be that the state law restrictions generally prohibiting disclosure of special categories of health information without consent (e.g., for mental health, substance abuse, HIV and genetic test information) have contributed to these precautions and practices which pre-date HIPAA. Clarifications at a federal level for “minimally necessary” guidelines, and assistance in the promulgation of the guidelines are needed.

Documentation of Consent. Having a national uniform consent/authorization to release information would likely facilitate electronic exchange of information, both intra- and interstate.

Obtaining Consent/Authorization at Point of Service. Although HIPAA does not require health care providers to obtain consent or authorization to release information for treatment or payment purposes, a change to HIPAA requiring the provider to obtain the patient’s legal permission authorizing release and any future release at the time of hospital admission or other initial point of service would likely facilitate future requests for release of that provider’s information. Such practice would be consistent with what is viewed as an expanding practice among Illinois payors to obtain the individual’s “disclosure authorization form” authorizing future releases to the insurer at the time of application, as is permitted by Illinois law. Making this a federal recommendation or standard would facilitate the interstate exchange of information.

Jurisdiction and Enforcement Issues. Noting the extensive protections in existing laws governing health care providers, insurers and others, and noting the demonstrated commitment that stakeholders have to maintaining patient confidentiality, there is a need to have more stringent requirements and sanctions in place to address business associates and others who may not read, understand, or take seriously the requirements of a business associate or subcontractor

agreement, and to otherwise deter other “bad actors” who may be outside the jurisdiction of existing laws. These concerns are amplified in the case of the overseas business partner who is not easily made subject to U.S. legal or contractual requirements. Providing additional deterrence on the federal level could facilitate and remove barriers to voluntary participation in an information exchange mechanism.

Maintaining Special Legal Protections and Ability to Segregate Different Categories of Information. A patient may be willing to authorize the release and future release of certain types of health information (for example, general treatment records) but not other types of health information (for example, drug or alcohol abuse treatment records, abortion records, or genetic testing information). Therefore, having the ability to electronically segregate, store, retrieve, and transmit different categories of information, while maintaining privacy and confidentiality protections, could facilitate electronic information exchange in several ways. First, patients may be more confident in participating in a RHIO or other exchange framework if special protections and the ability to exclude certain types of information from release are maintained. Second, having the ability to segregate or withhold information from general release may be required by laws that prohibit release of information unless certain circumstances exist (for example, a general subpoena or court order may permit release of some but not all information, as state law provides special requirements for mental health and developmental disabilities, alcohol/substance abuse, HIV and genetic testing information). Therefore, providers as well as consumers may be more willing to participate in electronic information exchange system if there are IT mechanisms that protect against unauthorized or illegal disclosures that could subject the provider to monetary or other penalties. Third, the ability to segregate and maintain special protections for categories of information that the federal and state legislatures and courts have found to require extraordinary protection is legally required absent wholesale preemption/revocation of such laws, and would also be necessary in order to be able to comply with new laws and changes to existing laws. The provision of model legislation for a national standardized approach to provide extraordinary protection would facilitate interstate exchange as well as compliance.

Changes to Stark and anti-kick back relief regulations. In order to expand the scope of the relief to target providers who serve the historically underserved, amend these regulations such that hospitals are allowed and possibly induced to provide physician practices that are serving economically disadvantaged populations with not only hardware, software, and training, but also additional technical resources to implement and support the technology.

Section 6 – Appendices

Appendix 1 – Illinois EHRTF Final Report