

Integration of Newborn Screening and Genetic Service Systems with Other Maternal & Child Health Systems

A Tool for Assessment and Planning

All Kids Count



Public Health
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Acknowledgments

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All Kids Count
Public Health Informatics Institute
750 Commerce Drive, Suite 400
Decatur, GA 30030
(800) 874.4338

www.allkidscount.org
www.phii.org

Introduction

Purpose

The *Tool for Assessment and Planning* assists public health teams in designing their child health information systems integration projects from planning through early implementation. The *Tool* is a companion to *Integration of Newborn Screening and Genetic Services Systems with Other Maternal & Child Health Systems: A Sourcebook for Planning and Development*.

The *Tool for Assessment and Planning* is designed to assist project teams in understanding:

- best practices associated with information systems projects.
- organizational readiness for the information systems project.
- additional strategies required to support successful project planning and implementation.
- accomplishments and action steps.

The *Sourcebook* describes nine key elements considered critical to the success of an information systems integration project. It also gives examples of best practices of the elements as demonstrated by five GSB/MCHB Special Projects of Regional and National Significance. The *Tool for Assessment and Planning* highlights each of the nine key elements, listing critical components that significantly influence the likelihood that an integration project will yield the desired data for improving program effectiveness and health outcomes. Ideally, the *Tool* helps project teams assess their organizational readiness and capacity to undertake and sustain a project as complex as integrating public health information systems.

Approach

The *Tool for Assessment and Planning* can be integrated into a team's project management strategy. The team should use this tool to seek input from key stakeholders that affect the project's planning and early implementation stages.

In these early stages, the team still has an opportunity to make critical changes to the project plan. To facilitate this process, the *Tool* focuses on planning and accountability. Establishing an organized approach, identifying accountable decision-makers, and monitoring progress are critical to a project's success.

Many of the questions in the Questionnaire are intended to promote thoughtful discussion among team members and define the most essential systems requirements. To make sure that project goals are met (or revisions to them made), the *Tool* should be revisited periodically (e.g., every three to six months) throughout the project's planning and early implementation stages.

The *Tool* presumes that the integration project has a team leader who can facilitate discussion around each of the critical components, which will be progressively classified as Not Started, In Progress, or Achieved. Discussion of components that are Not Started or In Progress can identify strategies to achieve the critical components.

Individual integration projects may not do all of these activities at all times, nor do all of them well. And, unfortunately, the realities of public health agencies and government organizations typically necessitate proceeding with project plans without all of the building blocks that create an ideal environment for success. Gaining awareness of the critical components, however, increases the likelihood of success.

Organization

The *Tool* is organized into two sections: Questionnaire and Integration Planning Matrix. The Questionnaire has nine key elements: Leadership, Project Governance, Project Management, Stakeholder Involvement, Organizational and Technical Strategies, Technical Support and Coordination, Financial Support and Management, Policy Support, and Evaluation. These key elements are based on information systems literature and best practices demonstrated by state and local governments. Best practices for each of these areas are documented in the *Sourcebook* and summarized with each element in this workbook.

The Integration Planning Matrix is a sample table designed to assist public health teams in determining future goals, strategies needed to reach each goal, and the people responsible for achieving the goals. The sample at the end of this workbook can serve as a template or a guide to build your own planning matrix (e.g., in MS Word or Excel) that best fits the needs of your project. The project manager – or someone in a similar hands-on role – typically maintains the planning matrix.

Instructions

1. Bring together the project team and document the date of the team review.
2. Reflect on the best practices summary as it relates to each key element in the *Tool*.
3. Indicate the status of your information system project (i.e., Not Started, In Progress, or Achieved) for each critical component listed under the elements. Depending on the nature of the project, some components may not apply and can be marked NA.
4. For every critical component checked Not Started or In Progress, enter strategies and action steps in the comment area below each table.
5. In the Integration Planning Matrix, document near- and medium-term actions to improve project outcomes, assign responsibilities, consider threats and risks to achieving the action item, and determine when the team should reconvene to review the *Tool*.

Note: Many of the questions call for subjective answers. These questions are intended to promote thoughtful discussion and action in the field. Bold type indicates the components that are the most critical to project success.

Questionnaire

1 Leadership

Best Practices A project has an executive sponsor and, ideally, also a champion. The executive sponsor is a high-level official who works for the institutionalization of the project, creates a work environment that fosters risk-taking and innovation, is a good communicator, and has political awareness and influential contacts. The champion has a passion for the project, the respect of other staff and executives, access to senior leadership, and a willingness to devote significant effort to help the project succeed. The executive sponsor and the project champion can be the same person.

Critical Components for Leadership	Not Started	In Progress	Achieved
1. The integration project team has a high-level executive sponsor.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. The executive sponsor or project champion actively supports the project by protecting or acquiring resources and funding.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. The executive sponsor and champion receive routine briefings on the status of the project through an established communication process.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. The executive sponsor encourages the use of information (data) as a decision-making tool.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. The project champion strategically educates and builds support for the project among different public health and health-care audiences.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. The project champion works with executive leadership to develop policies and procedures that support integration.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Leadership strategies and action steps for improvement:

A series of 20 horizontal dotted lines for writing.

2 Project Governance

Best Practices A governance structure for the project has been established. Two committees guide the project: a steering committee representing ALL key stakeholders and an internal executive committee. The steering committee informs the integration strategy, based on clearly defined business partner roles. Outside facilitators are used to assist the steering committee in making objective decisions. The internal executive committee governs the direction of the project and clearly outlines the decision-making processes.

Critical Components for Project Governance	Not Started	In Progress	Achieved
1. The project is governed by a steering committee (or other governing body) that has representation from ALL key stakeholders.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. Members of the executive committee have active roles that contribute to the project's goals, content, and policies.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. Members of the executive committee have decision-making power within an agreed-upon role structure.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. Members of the steering committee communicate the project status to their constituencies.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. Meetings of the steering and executive committees are held regularly.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. External meeting facilitators have convened the steering committee and have moderated sessions to establish common ground and the airing of issues or concerns among stakeholders.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

3 Project Management

Best Practices The project has formalized management strategies and project management methodologies designed to ensure consistent communications, accountability, and awareness of resource utilization and constraints. The project has adequate and appropriate staff with the right skill sets to achieve project goals.

Critical Components for Project Management	Not Started	In Progress	Achieved
1. An analysis of project value (sometimes referred to as a return on investment or business case analysis) has been conducted to establish those aspects of value that the integration project must achieve.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. The project has a clearly written plan for accomplishing its goals, objectives, and key milestones. Start and end dates are established, and responsible persons are confirmed.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. Roles and responsibilities of the project team members have been identified and documented in a written agreement.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. Reporting frequencies and protocols for the project manager to report to the Executive Committee have been specified.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. Information users of the integrated information systems are actively involved throughout the project.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. The project team is actively educating health department staff.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. The project team plans for organizational change management issues that the implementation of a new information system will bring.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. The project team members have copies of and understand the written project management documentation.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9. The project team actively manages risk by identifying potential risks/barriers and taking steps to reduce, transfer, or eliminate them.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

4 Stakeholder Involvement

Best Practices Frequent and high-quality communication with stakeholders and stakeholder involvement in the integration project contributes to its credibility and effectiveness. Stakeholder communication and involvement can influence the perception, reception, and ultimately, the success, of the project. In addition to the programs being integrated, important stakeholder groups include providers, families, other public and private sectors, and insurers. Stakeholder involvement means that stakeholders play a role in making critical decisions and providing input throughout the project lifecycle, help establish mutual goals, and provide meaningful and regular feedback.

Critical Components for Stakeholder Involvement	Not Started	In Progress	Achieved
1. The key stakeholders have been identified. Stakeholders are contributors of information, information users, and funders of the system, as well as anyone who will interact with the system or benefit from it.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. A communications plan is in place that describes the methods the project team will use to communicate with the key stakeholders. The plan identifies how feedback will be received from the key stakeholders and describes the frequency of the communications.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. Each stakeholder has received a formal request for participation in the project. The request outlines the stakeholders' role in the project.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. The governance structure for the integration project has been defined and explained to each stakeholder.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

5 Organizational and Technical Strategies

Best Practices No single strategy can be deemed the best solution for an integration project. A strong integration strategy takes into consideration local issues such as funding, the political environment, organizational structure, strengths of the organization, and stakeholder beliefs and values. The strategy needs to be customer focused, developed through a proven process involving stakeholders, and based on business processes. Investments in information technology also should adhere to and support the articulated organizational strategic direction.

Critical Components for Organizational and Technical Strategies		Not Started	In Progress	Achieved
Organizational Strategy	1. The organization has articulated and documented a strategy that involves integrating information systems.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	2. The organization has examined the implications of integration on program function, staffing, data ownership and data sharing, and reflects these considerations in its organizational strategy.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	3. The organizational strategy describes the expectations and limits on data use, as negotiated by the project team, executive staff, and other stakeholders.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	4. The organization has a Chief Information Officer (or similar position) who is a stakeholder and is involved in the organizational and technical strategy development.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Technical Strategy	5. The technical strategy directly supports the identified business processes of each of the programs (e.g., the technology supports the programmatic goals and objectives).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	6. The integration project has a written strategy that overtly addresses both the organizational and technical implications.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	7. The technical strategy conforms to agency information technology standards, national technical standards, and other relevant norms.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	8. The technical strategy details the IT infrastructure currently in use and planned for use during the lifecycle of the integration project.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Organizational and technical strategies and action steps for improvement:

A series of horizontal dotted lines for writing, consisting of 20 lines.

6 Technical Support and Coordination

Best Practices Technical information systems support and coordination is organized to ensure a consistent and robust technical infrastructure capable of maintaining and complying with standards governing public health and health-care systems. Technical staff works closely with the program staff to understand its objectives and business processes. Technical coordination involves translating programmatic needs to technical staff. A new role, business analyst, offers a means of implementing this best practice. A business analyst is skilled at working with information users to determine their needs. This role is more than a note taker; the business analyst is responsible for drilling down into each business requirement to ensure that what is being requested is needed.

Critical Components for Technical Support and Coordination	Not Started	In Progress	Achieved
1. Project has adequate technical support either in-house or via a contracted agency, as discussed and reviewed by the CIO, executive committee, and/or project management team.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. Technical staff has a process in place for communicating with program staff and routinely interacts with them.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. Project has a staff person designated as the translator between technical and programmatic staff. The business analyst often fills this role.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. The integration project has an operational environment with service-level agreements, hours of support desk, etc.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. The technical support staff is adequately trained in the technology that the project team plans to use.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. A user-training program has been written into the technical strategy and has been coordinated with the IT management staff.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. The agency has a supportive environment for technical and programmatic users that extends beyond initial training. This environment encourages ongoing training of technical and programmatic users.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. The technology staff, required to support the new information system, has reviewed the implications of “bringing up” or “rolling out” the new system.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

7 Financial Support and Management

Best Practices The project funding is adequate and derived from multiple sources. Funding streams are integrated and “creative.” To ensure coordinated use of funds and accountability, an oversight committee performs grants management.

Critical Components for Financial Support and Management	Not Started	In Progress	Achieved
1. The overall budget for the integration effort is realistic and inclusive of all elements critical to the project’s success as defined by the project plan.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. Funds are creatively sought and managed to meet the challenges of integrating information systems for categorically funded programs.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. Strategies for securing the funding requirements identified in the budgeting process have been written and assigned to personnel who are accountable.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. The financial plan creates sustainability, minimized costs of financial shortages, and avoids overdependence on only a few streams of funding.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. Budget plans are updated as financial information comes in.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

8 Policy Support

Best Practices Rules, regulations, legislation, and policy advisory or policy-making bodies are supportive, or at a minimum, neutral to program integration and the integration of health information systems.

Critical Components for Policy Support	Not Started	In Progress	Achieved
1. The policies and regulations that affect the systems being integrated or linked have been identified and reviewed.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. Policies and regulations that are barriers to the integration have been targeted for change with a written request or draft revisions of policies.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. HIPAA compliance in confidentiality, privacy, and security has been determined and documented.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. A confidentiality policy has been written that is consistent with federal and state laws and applies to everyone who has access to the system. The policy describes the use of the data and defines who has access to what information.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. A security plan to safeguard data from unauthorized access or unwanted change or loss for the integrated system exists. The plan includes procedures such as audit trails, physical access controls, content access controls, access limitations, and disaster recovery processes.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. Data sharing agreements between programs or agencies and all information users are up-to-date and support the integration plan.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

9 Evaluation

Best Practices The project has some form of qualitative and/or quantitative monitoring or evaluation that is performed regularly. The measures can be developed internally or adapted from other sources.

Critical Components for Evaluation	Not Started	In Progress	Achieved
1. The evaluation plan includes process measures to monitor the project's performance (e.g., task completion rates, timeliness of delivery) and outcome measures to assess the effect of integration of public health programs (e.g., more children identified for necessary services, data quality improved).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. The team member with project evaluation responsibility has been confirmed.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. Secure funding supports the evaluation effort, and the evaluation is funded at a level that enables the project team to learn. (Evaluation is usually 15-20 percent of the overall project's budget for innovative efforts.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. Stakeholders are involved in the identification of priority outcome measures.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. A process is in place to share the evaluation results periodically with senior management and other key stakeholders (e.g., establish a feedback loop to provide operational or tactical input and changes necessary for the project's success).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Integration Planning Matrix

To track your project's ongoing needs and progress, modify this template in a program such as MS Word or Excel. The column headers and text are samples for your consideration as you create a matrix that best serves your needs.

The action items and other details entered in this matrix should reflect the information documented by the project team in the previous sections for each of the nine key elements. *The Tool for Assessment and Planning* should be reviewed on a regular basis (e.g., every three to six months) and progress shared with the executive committee and other key stakeholders.

Action items/ Goals	Target date for completion or next review	Strategic plans and action steps (Refer to separate document, as needed.)	Assumptions, risks, threats, dependencies, other notes	Owner/Stakeholder
<i>Project plan weekly update</i>	<i>next review session: 04/15/2004</i>	<i>See attached file: project_plan_update.v2</i>	<i>See attached: Project Notes.v2</i>	<i>Kelly Jones, project manager; Joe Smith, client contact</i>